

THE REJECTIONS BASED ON THE PRIOR ART

Claims 1-13 and 22-35 are rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Schofield et al., U.S. Patent No. 6,493,826 B1 (herein referred to as Schofield).

CLAIMS 1 AND 23

Claims 1 and 23 recite, *inter alia*,

performing a first operation of said first plurality of operations associated with the atomic transaction;
during said step of performing the first operation, detecting a first error that prevents completion of the first plurality of operations;
in response to detecting the first error, performing a second plurality of operations for resolving the first error;
determining whether a resolution of the first error is obtained in response to performing the second plurality of operations; and
if the resolution is obtained, then *resuming execution of the first plurality of operations*...(emphasis added).

The Office Action cites Schofield's column 6, line 58, through column 7, line 30, in support of the rejection of Claims 1 and 23.

In response to the previous Office Action, Applicants explained that, although Schofield may disclose **rolling back** and **completely restarting** a transaction after the occurrence of an error that prevented the transaction from completing, Schofield does not in any way teach or suggest **resuming execution of operations** associated with a transaction after the occurrence of an error that prevented the transaction from completing. Applicants explained the difference between restarting a transaction and resuming a transaction. Applicants also explained the advantages of resuming a transaction instead of restarting the transaction. For additional information regarding the disadvantages of restarting a transaction, the Examiner is referred to paragraph [0005] of the present application.

By its own terms, Schofield declares that a transaction **cannot be resumed** after an error occurs in connection with the transaction. In col. 16, lines 35-38, Schofield states, "If **any**

of the operations performed within the transaction raise error conditions or if any other data integrity constraints are violated, then **the transaction cannot be allowed to complete and must be rolled back.**” This unambiguous statement leaves no room for doubt: if an error occurs during a transaction, then the transaction cannot resume, and must be rolled back. No portion of Schofield contradicts this teaching. All other statements in Schofield should be construed in a manner that is consistent with this teaching.

In response to the Applicants’ previous explanation, the current Office Action notes that, in col. 7, lines 23-30, Schofield discloses that a volatile memory list may contain information that would otherwise necessarily be accessed from the log in the performance of normal forward processing.

Applicants do not dispute that Schofield discloses that information contained in the volatile memory list may be used for normal forward processing. Indeed, prior to Schofield, similar information contained in a non-volatile log was used for normal forward processing. However, the cited passage of Schofield does not mean that the information in the volatile memory list (or the non-volatile log, for that matter) is used to resume a transaction after an error. What the cited passage really means is that after all of the operations of a transaction have been performed successfully, **without the occurrence of an error**, the information in the volatile memory list may be used to commit the transaction—to make the operations of the transaction permanent.

“Normal forward processing” refers to forward processing in which all of the operations of the transaction have been successful, or in other words, forward processing during which no error occurs. The occurrence of an error during forward processing is “abnormal.” Thus, the statement in col. 7, lines 23-30 does not refute Applicants’ previous explanation in any way.

Although not specifically cited in the Office Action, Schofield also indicates, in col. 8, lines 12-17, that a commit operation may be continued if the thread of control performing the

commit operation were to be halted by a user. Lest there be any confusion on the matter, Applicants wish to note that this passage of Schofield only discloses that a commit operation may be resumed after being **halted by a user**, and not after the occurrence of any error that prevented the transaction from completing.

From the above discussion, it should be abundantly clear that Schofield does **not** disclose, teach, or suggest the method of Claim 1 or the computer-readable medium of Claim 23. Specifically, Schofield fails to disclose, teach, or suggest that a transaction may be resumed (as opposed to restarted) after an error occurs relative to the transaction. Indeed, Schofield expressly and unequivocally declares that a transaction **cannot** be resumed after an error occurs relative to the transaction.

CLAIM 22

Claim 22 recites, *inter alia*,

determining whether the first error is a member of a predetermined set of errors for which corrective action is available for allowing the atomic transaction to be completed; and
 upon determining that the first error is a member of the predetermined set of errors, performing a second plurality of operations for resolving the first error,...
 determining whether a resolution of the first error is obtained within a particular time period in response to performing the second plurality of operations;
 if the resolution is obtained, then ***resuming execution of the first plurality of operations***;...(emphasis added)

The Office Action cites Schofield's column 6, line 58, through column 7, line 30, in support of the rejection of Claim 22. The cited portions are discussed above in connection with Claims 1 and 23. Similar to Claims 1 and 23, Claim 22 indicates that if the resolution of the error is obtained, then the first plurality of operations is resumed. In contrast, the passages cited by the Office Action recite backing out or rolling back the transaction if there is an error, and

never discuss resuming execution of the transaction under such conditions. Thus, Schofield does **not** disclose, teach, or suggest the method of Claim 22.

DEPENDENT CLAIMS

Claims 2-13 and 24-35 are dependent claims, each of which depends (directly or indirectly) on one of the claims discussed above. Each of these dependent claims is therefore allowable for the reasons given above for the claim on which it depends. In addition, each of these dependent claims introduces one or more additional features that independently render it patentable. Due to the fundamental differences already identified, to expedite the positive resolution of this case, a separate discussion of all of the remaining such features is not included at this time.

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

Please charge any shortages or credit any overages to Deposit Account No. 50-1302.

Respectfully submitted,

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on July 8, 2005

by


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